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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/064,192

06/20/2002

John Victor James

201-0576

2806

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7590

12/02/2003

FORD GLOBAL TECHNOLOGIES, LLC.
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EXAMINER

HOANG, JOHNNY H

ART UNIT

PAPER NUMBER

3747

DATE MAILED: 12/02/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,192

Applicant(s)

JAMES ET AL.

Examiner

Johnny H. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Kashimura et al (US 6,061,624).

Regarding to claim 1, the reference of Kashimura et al teaches the multi-cylinder engine combustion diagnosis apparatus and method which including the following subject matters: a method for determining a cylinder specific performance parameter for a cylinder of a multi-cylinder internal combustion engine (see abstract), comprising the steps of:

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determining a performance parameter representative of engine output across a first group of cylinders based on an engine operating parameter (see figure 4; and col. 4, lines 25-54);

determining a cylinder deviation parameter representative of engine output of a single combustion event in the cylinder (see Fig. 7(a), and 7(b); and col. 5, line 63 through col. 6, line 12); and

calculating the cylinder performance parameter representative based on said performance parameter and cylinder deviation parameter (see abstract; and col. 7, line 60 through col. 8, line 6).

Regarding to claims 2-4 (as discussed in claim 1).

Regarding to claims 5-7, the reference of Kashimura et al also teaches performance parameter is based on air charge (col. 4, lines 1-7; and col. 4, line 60 through col. 5, line 50).

Regarding to claims 8-9 (as discussed in claims 1, and 5-7).

Regarding to claim 10 (see col. 2, lines 12-38; col. 3, line 53 through col. 4, line 7; and col. 4, lines 49-54).

Regarding to claims 11-14 (as above discussions).

Regarding to claims 15-28, (see the above rejections).

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Regarding to claim 29, the reference of Kashimura et al teaches a system capable of computing an indicated mean effective pressure for a cylinder of an internal combustion engine, said cylinder being a member of a group cylinders in the engine (above rejections), said system comprising:

a crankshaft position sensor coupled to the engine (col. 1, lines 18-43; and col. 4, line 25 through col. 5, line 50); and

an electronic control unit operably connected to the engine and said crankshaft position sensor, said unit determining an engine rotational acceleration deviation for a single cylinder based on a signal from said crankshaft position sensor, said unit further determining indicated mean effective pressure for all cylinders of the engine, said unit further determining the cylinder specific indicated mean effective pressure of the cylinder based on said engine rotational acceleration deviation for the cylinder and said indicated mean effective pressure for the engine (as all above rejections).

Regarding to claims 30-34 (as discussed above).

Regarding to claims 35-43, as above rejections and the reference of Kashimura et al also teaches the computer readable storage medium having stored data representing instructions executable by a computer to compute a cylinder specific performance parameter for a cylinder of an internal combustion engine (see Figure 2).

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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The copies of U.S Patent are provided.

Flanagan et al (US 6,292,757 B1), Williams (US 6,223,120 B1), Fukuchi et al (US 5,991,684), Kitamura et al (US 5,806,506), and Sugai et al (US 5,497,328).

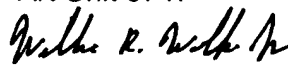
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (703) 308-2782. The examiner can normally be reached on Monday - Thursday (7:00Am-5: 30Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

JHH
November 19, 2003

Johnny H. Hoang
Examiner
Art Unit 3747


Willis R. Wolfe
Primary Examiner
Art Unit 3747